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F17-5182-3-A; Effective: 01/05/2021; Supersedes: None

# **General Assay Diluent, 2X**

# Equalizes the sample and standard matrices for a more accurate result.

General Assay Diluent, 2X is provided as a 2X concentrate. In order to accommodate increased component quantities present in General Assay Diluent, 2X, the pH has been adjusted to 8.5-8.6, compared to 7.2-7.6 in the 1X formulation. This is not expected to have adverse effects on performance, however, users of the 1X formulation should

with an assay diluent proteins and the sample the coated diluent to contains the antibody small molecules every well to target antigen in the sample equalize the and interfering the target may suppress molecules that antibody to matrix antigen mix with the antigen binding assav diluent efficiency

Equalize the matrix

evaluate the impact of switching to the 2X concentrated version of the product experiementally.

General Assay Diluent has been formulated for testing serum, plasma, urine, and cell culture samples in all sandwich ELISA formats. When diluted to its 1X working concentration, it can be used to help minimize matrix complexity differences between the sample (e.g., serum, etc.) and the diluent used to generate the standard curve of the ELISA. Large differences between the sample and the standard diluent matrices will result in under-recovery of the target analyte present in sample wells. Complex and concentrated protein environments (the matrix) present in serum or plasma samples will greatly reduce the antigen-binding efficiency of the plate-adsorbed antibodies, resulting in a gross underestimation of the amount of target analyte present in the test samples. General Assay Diluent helps equalize the antibody-binding efficiencies between the standard curve and the sample wells.

To use, dilute 1:2, and then add 50-100 µL to every well of the ELISA plate, including all wells designated for standards, controls, and samples. Then add the standards, controls, and samples to the plate. Mammalian protein additives included in the formulation serve to reduce non-specific interactions between the sample matrix proteins and the plate surface, thereby minimizing background noise. General Assay Diluent also inhibits complement and thrombin activity present in serum and plasma samples. Incorporation of an antimicrobial agent allows for room temperature bench-top use and extensive storage stability at 2-8°C. This assay diluent formulation ensures a more accurate and consistent ELISA performance, regardless of sample type.

### **BRIGHT MINDS, BRIGHT SOLUTIONS.™**

ImmunoChemistry Technologies, LLC gratefully acknowledges the significant contributions made by one of its founders, Brian W. Lee, Ph.D in the development of this product, including the creation and illustration of its strategy and protocol.

## **GENERAL ASSAY DILUENT, 2X**

Size Catalog # 1 L #6710

#### **INSTRUCTIONS:**

- 1. Dilute the standard curve, controls, and the samples as necessary. ICT offers several formulations of sample diluents in which to prepare the samples.
- 2. Prepare 1X working strength assay diluent by diluting 1:2 in diH<sub>2</sub>O. Add 1 part General Assay Diluent, 2X to 1 part diH<sub>2</sub>O. Mix well.
- 3. Pipette 50-100 µL General Assay Diluent per well into every well of the plate.
- 4. Pipette 50-200 μL of each standard, control, and sample into the plate.
- 5. Run the assay according to the specific ELISA protocol.
- 6. Analyze the data. Because all of the wells, including the standards and controls, received the same volume of assay diluent, there is no need to account for this dilution when calculating the results.

For more ELISA protocols and information, please visit www.immunochemistry.com.

#### **SPECIFICATIONS:**

- Clear to light yellow liquid
- 2X concentrate
- pH 8.5-8.6

#### **STORAGE:**

- 24 months at 2-8°C
- 1 week at room temperature

#### **SAFETY & USAGE:**

- Warning! Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.
- SDS available at immunochemistry.com
- Product intended for research use or for further manufacturing into *in vitro* diagnostics reagents only.
- Not intended for use in human or therapeutics purposes.



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